

# 1 VQE results Aer Estimator (No Shots)

		(Full Hamiltonian)	Anharmonic Oscillator	$\Lambda = 2$	COYBLA Max 10K Iterations				
Ansatz	Tolerance	Converged runs	Mean iter	VQE min E.	$\Delta_{min}$	VQE median E.	$\Delta_{median}$	Exact	Time
RA r1 rl	1e-01	100/100	21	-4.3743e-01	7.3201e-05	-4.316e-01	5.898e-03	-4.3750e-01	00h 00m 08s
RA r1 rl	1e-02	100/100	36	-4.375e-01	1.13e-06	-4.3742e-01	8.2436e-05	-	00h 00m 13s
RA r1 rl	1e-03	100/100	58	-4.375e-01	7.517e-09	-4.375e-01	8.1328e-07	-	00h 00m 19s
RA r1 rl	1e-04	100/100	89	-4.375e-01	1.3821e-10	-4.375e-01	6.9869e-09	-	00h 00m 28s
RA r1 rl	1e-05	100/100	201	-4.375e-01	1.2323e-13	-4.375e-01	7.8948e-11	-	00h 01m 05s
RA r1 rl	1e-06	100/100	178	-4.375e-01	2.2093e-14	-4.375e-01	7.1354e-13	-	00h 00m 54s
RA r1 rl	1e-07	100/100	232	-4.375e-01	0e+00	-4.375e-01	7.3275e-15	-	00h 01m 11s
RA r1 rl	1e-08	100/100	581	-4.375e-01	0e+00	-4.375e-01	2.2204e-16	-	00h 02m 59s
Ansatz	Tolerance	Converged runs	Mean iter	VQE min E.	$\Delta_{min}$	VQE median E.	$\Delta_{median}$	Exact	Time

Table 1